

Introduction to Scala

Practical Exercises

Getting Started with Scala

1. Write a function that converts a temperature expressed in degrees Celsius to degrees Fahrenheit. The following formula defines the calculation

$$F = (C * 9 / 5) + 32$$

2. Write a function that converts a String containing a date in the form dd/mm/yy into a full representation of the date. For example, "01/02/15" will be "1st February 2015". Assume dates will not go back further than needed to convert a 2 digit year to a 4 digit year.

3. The following shows examples of lines from a standard Unix/Linux password file:

```
nobody:*:-2:-2:Unprivileged User:/var/empty:/usr/bin/false
root:*:0:0:System Administrator:/var/root:/bin/sh
daemon:*:1:1:System Services:/var/root:/usr/bin/false
```

The field meanings are:

```
username:password:uid:gid:description:home-dir:shell
```

Using a regular expression, extract the fields from a line such as these.